GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: June 12, 2003, 15:26:44 ; Search time 36 Seconds
(without alignments)
70.327 Million cell updates/sec

Title: US-09-869-540A-2
Perfect score: 113
Sequence: 1 DFDMLRCMLGRVYRPCWQV 19

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_101002:*
1: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
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9: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
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22: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	113	100.0	19	11	AAR07358	Cyclic mammalian m
2	113	100.0	19	20	AAY16571	Melanin-concentrat
3	113	100.0	19	21	AAB12777	Rat MCH ligand pep
4	113	100.0	19	21	AAY90259	Melanin concentrat
5	113	100.0	19	22	AAU25615	G Protein-Coupled
6	113	100.0	19	22	AAE07335	Mammalian melanin-
7	113	100.0	19	22	AAB68894	Human mMCH. Homo
8	113	100.0	19	22	AAB48153	Rat/human melanin-
9	113	100.0	19	22	AAB37951	Melanin concentrat
10	113	100.0	19	23	AAU77533	Melanin concentrat
11	113	100.0	165	11	AAR07360	Rat melanin-concen
12	107	94.7	18	21	AAB12780	Rat MCH ligand pep
13	107	94.7	18	23	AAU77534	Melanin concentrat
14	101	89.4	17	23	AAU77535	Melanin concentrat
15	101	89.4	19	22	AAE07337	Human truncated me
16	97	85.8	16	21	AAB12781	Rat MCH ligand pep
17	97	85.8	19	22	AAE07338	Human truncated me
18	95	84.1	16	21	AAB12782	Rat MCH ligand pep
19	95	84.1	16	23	AAU77536	Melanin concentrat
20	93	82.3	16	21	AAB12776	Rat SLC-1 ligand p
21	93	82.3	16	22	AAE07334	Human truncated me
22	90	79.6	15	21	AAB12783	Rat MCH ligand pep
23	90	79.6	15	23	AAU77537	Melanin concentrat
24	90	79.6	17	4	AAP30689	Sequence of growth
25	88	77.9	17	4	AAP30438	Sequence of growth
26	88	77.9	17	5	AAP40253	Growth hormone rel
27	87	77.0	17	4	AAP30688	Sequence of growth
28	87	77.0	17	22	AAU25616	G Protein-Coupled
29	87	77.0	17	22	AAB48154	Salmon melanin-con
30	86	76.1	14	21	AAB12784	Rat MCH ligand pep
31	86	76.1	14	23	AAU77538	Melanin concentrat
32	81	71.7	13	21	AAB12785	Rat MCH ligand pep
33	81	71.7	13	22	AAE07336	Human truncated me
34	81	71.7	13	23	AAU77539	Melanin concentrat
35	66	58.4	11	22	AAE07331	Human truncated me
36	66	58.4	11	22	AAE07339	Human truncated me
37	66	58.4	11	22	AAE07340	Human truncated me
38	66	58.4	11	22	AAE07341	Human truncated me
39	66	58.4	11	22	AAE07342	Human truncated me
40	66	58.4	11	22	AAE07343	Human truncated me
41	66	58.4	11	22	AAE07344	Human truncated me
42	66	58.4	11	22	AAE07345	Human truncated me
43	66	58.4	11	22	AAE07346	Human truncated me
44	66	58.4	11	22	AAE07347	Human truncated me
45	66	58.4	11	22	AAE07348	Human truncated me

ALIGNMENTS

RESULT 1
AAR07358
ID AAR07358 standard; protein; 19 AA.
XX
AC AAR07358;
XX
DT 29-JAN-1991 (first entry)
XX
DE Cyclic mammalian melanin-concentrating hormone peptide.
XX
KW Melanin concentrating hormone; skin disorders; melanomas;
KW ACTH secretion.
XX
OS synthetic.
XX
FH Key Location/Qualifiers
FT Disulfide-bond 7..16
XX
PN WO9011295-A.
XX
PD 04-OCT-1990.
XX
PF 20-MAR-1990; 90WO-US01492.
XX
PR 22-MAR-1989; 89US-0326984.
XX
PA (SALK) SALK INST FOR BIOL STUD.
XX
PI Vaughan J, Fischer WH, Rivier JE, Nahon JM, Presse FG, Vale WW;
XX
DR WPI; 1990-320225/42.
DR N-PSDB; AAQ06238.
XX

PT Cyclic mammalian hormone for concentrating mammalian melanin -
PT comprises peptide based on 19 amino acid residues with cysteine
PT linkages.
XX
PS Claim 2; page 43; 47pp; English.
XX
CC This is the sequence of a cyclic mammalian melanin-concentrating
CC hormone (MCH) peptide. MCH is useful for treating skin disorders,
CC for suppressing the proliferation of melanoma cells and for
CC modulating secreton of ACTH. Monoclonal antibodies raised against
CC this peptide sequence are useful for assaying tumour cells.
CC See also AAQ06239-48.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 113; DB 11; Length 19;
Best Local Similarity 100.0%; Pred. No. 1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DFDMLRCMLGRVYRPCWQV 19
||||||||||||||||||||
Db 1 DFDMLRCMLGRVYRPCWQV 19

RESULT 2
AAY16571
ID AAY16571 standard; Peptide; 19 AA.
XX
AC AAY16571;
XX
DT 10-AUG-1999 (first entry)
XX
DE Melanin-concentrating hormone peptide sequence.
XX
KW Human 11cb splice variant; antibacterial; gene therapy; vaccine; HIV-1;
KW HIV-2; pain; cancer; diabetes; obesity; anorexia; bulimia; asthma;
KW Parkinson's disease; heart failure; hypotension; hypertension;
KW urinary retention; osteoporosis; angina pectoris; myocardial infarction;
KW ulcer; allergy; benign prostatic hypertrophy; psychotic disorder;
KW neurological disorder; anxiety; schizophrenia; manic depression;
KW delirium; dementia; severe mental retardation; dyskinesia;
KW Huntington's disease; Gilles de la Tourette's syndrome;
KW bacterial adhesion; Melanin-concentrating hormone.
XX
OS Homo sapiens.
XX
PN WO9928492-A1.
XX
PD 10-JUN-1999.
XX
PF 02-DEC-1998; 98WO-US25497.
XX
PR 15-APR-1998; 98US-0060504.
PR 03-DEC-1997; 97US-0984288.
PR 05-FEB-1998; 98US-0073747.
XX
PA (SMIK) SMITHKLINE BEECHAM CORP.
XX
PI Ames RS, Bergsma D, Chambers JK, Ellis CE, Foley JJ;
PI Sarau HM;
XX
DR WPI; 1999-371132/31.
XX
PT New human 11cb splice variant polypeptide and polynucleotide
XX
PS Example 3; Page 45; 56pp; English.
XX
CC The present sequence represents melanin-concentrating hormone, which is a
CC ligand for the human 11cb splice variant polypeptide. 11cb splice variant
CC polypeptides and polynucleotides are useful for diagnosing diseases due
CC to an infection of an organism with the 11cb splice variant gene. They
CC can diagnose the stage and type of infection. 11cb splice variant
CC polypeptides are also useful for screening for compounds which affect
CC activity of the protein. These can be used in treatment to inhibit
CC (antagonist i.e. antibacterial drugs) or enhance (agonist) 11cb splice
CC variant activity, in addition to direct administration of 11cb splice
CC variant polypeptides to treat conditions associated with a lack of 11cb
CC splice variant polypeptide, or direct administration of antisense
CC sequences to prevent expression. 11cb splice variant polypeptides
CC (administered directly, in a vector i.e. gene therapy, and as a vaccine)
CC and antibodies induce an immune response to immunize and prevent disease.
CC Diseases diagnosed, prevented or treated include HIV-1 or -2 infection;
CC pain; cancer; diabetes; obesity; feeding and drinking abnormalities
CC e.g. anorexia, bulimia; asthma; Parkinson's disease; acute and congestive
CC heart failure; hypotension; hypertension; urinary retention;
CC osteoporosis; angina pectoris; myocardial infarction; ulcers; allergies;
CC benign prostatic hypertrophy and psychotic and neurological disorders,
CC including anxiety, schizophrenia, manic depression, delirium, dementia
CC or severe mental retardation, and dyskinesias, such as Huntington's
CC disease or Gilles de la Tourette's syndrome. 11cb splice variant
CC polypeptides, polynucleotides and their (ant)agonists can prevent
CC adhesion of bacteria to matrix proteins, and are useful for use on
CC wounds and body implants to prevent bacterial infection.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 113; DB 20; Length 19;
Best Local Similarity 100.0%; Pred. No. 1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DFDMLRCMLGRVYRPCWQV 19
||||||||||||||||||||
Db 1 DFDMLRCMLGRVYRPCWQV 19

RESULT 3
AAB12777
ID AAB12777 standard; peptide; 19 AA.
XX
AC AAB12777;
XX
DT 22-NOV-2000 (first entry)
XX
DE Rat MCH ligand peptide SEQ ID NO:2.
XX
KW SLC-1; MHC; melanin concentrating hormone; screening; eating;
KW appetite stimulator; appetite regulator; period pain; atonic bleeding;
KW caesarean section; milk congestion; antiobestic agent; drug;
KW foetal asphyxia; cevical rupture; premature birth; uterine rupture;
KW Prader-Willi syndrome; anorectic; gynaecological; abortifaciant;
KW antoanaemia; anabolic; orphan G protein-couple receptor protein.
XX
OS Rattus sp.
XX
FH Key Location/Qualifiers
FT Disulfide-bond 7..16
XX
PN WO200040725-A1.
XX
PD 13-JUL-2000.
XX
PF 27-DEC-1999; 99WO-JP07336.
XX
PR 28-DEC-1998; 98JP-0374454.
PR 28-APR-1999; 99JP-0122688.
PR 02-SEP-1999; 99JP-0249300.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Mori M, Shimomura Y, Takekawa S, Sugo T, Ishibashi Y, Kitada C;
PI Suzuki N;
XX
DR WPI; 2000-475832/41.
XX
PT Screening methods for compounds as SLC-1 (ant)agonists useful in the
PT treatment of eating disorders and as preventives and remedies for e.g.

PT atonic bleeding and Prader-Willi syndrome -
XX
PS Claim 8; Page 106; 123pp; Japanese.
XX
CC The present invention describes a method for screening components (I) or
CC their salts that can alter the binding properties of melanin-
CC concentrating hormone (MCH) or its derivative or salt to SLC-1 or its
CC salt. Compounds identified by (I) are useful as SLC-1 (ant)agonists in
CC eating disorders and as preventives and remedies for e.g. period pains,
CC uterine recovery failure, caesarean section, artificial interruption of
CC pregnancy, galactostosis, tonic uterine contraction, foetal asphyxia,
CC rupture of uterus, cervical rupture, premature birth and Prader-Willi
CC syndrome. The present sequence represents a rat MHC ligand peptide
CC which is used in the exemplification of the present invention.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 113; DB 21; Length 19;
Best Local Similarity 100.0%; Pred. No. 1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DFDMLRCMLGRVYRPCWQV 19
||||||||||||||||||||
Db 1 DFDMLRCMLGRVYRPCWQV 19

RESULT 4
AAY90259
ID AAY90259 standard; Peptide; 19 AA.
XX
AC AAY90259;
XX
DT 19-SEP-2000 (first entry)
XX
DE Melanin concentrating hormone peptide.
XX
KW Human; 11cby; diagnosis; therapy; infection; cancer; diabetes; obesity;
KW anorexia; bulimia; asthma; Parkinson's disease; congestive heart failure;
KW hypotension; hypertension; urinary retention; osteoporosis; delirium;
KW angina pectoris; myocardial infarction; ulcer; allergy; manic depression;
KW benign prostatic hypertrophy; psychotic disorder; neurological disorder;
KW anxiety; schizophrenia; dementia; severe mental retardation; dyskinesia;
KW Huntington's disease; Gilles dela Tourette's syndrome;
KW genetic counselling; melanin-concentrating hormone.
XX
OS Homo sapiens.
XX
PN WO200037113-A1.
XX
PD 29-JUN-2000.
XX
PF 22-DEC-1999; 99WO-US30622.
XX
PR 22-DEC-1998; 98US-0218467.
XX
PA (SMIK) SMITHKLINE BEECHAM CORP.
XX
PI Sathe G, Ellis CE, Halsey W, Bergsma D;
XX
DR WPI; 2000-452132/39.
XX
PT Novel 11cby polynucleotides for diagnosis, prevention and treatment of
PT cancer, diabetes, psychotic and neurological disorders, microbial
PT infections and for genetic counselling -
XX
PS Disclosure; Page 6; 45pp; English.
XX
CC This sequence represents a melanin-concentrating hormone peptide, that
CC is bound by the human 11cby protein of the invention. 11cby
CC polynucleotides are useful as diagnostic reagents for detecting the
CC presence or absence of a variation in a 11cby allele in an individual.
CC Assaying for the presence or absence of a 11cby polynucleotide mutation
CC by isolating DNA from the individuals is useful for screening an
CC individual for an increased risk of developing a disease or for
CC diagnosing a disease. 11cby polynucleotides may contain polymorphic
CC markers, and are therefore useful for genetic association
CC studies searching for a disease susceptibility gene and/or therapeutic
CC response gene. Diseases treated include bacterial, fungal, protozoan and
CC viral infections, particularly infection caused by human immunodeficiency
CC virus (HIV)-1 or HIV-2, cancers, diabetes, obesity, feeding and drinking
CC abnormalities, such as anorexia and bulimia, asthma, Parkinson's disease,
CC acute and congestive heart failure, hypotension, hypertension, urinary
CC retention, osteoporosis, angina pectoris, myocardial infarction, ulcers,
CC allergies, benign prostatic hypertrophy, psychotic and neurological
CC disorders, including anxiety, schizophrenia, manic depression, delirium,
CC dementia or severe mental retardation, and dyskinesias, such as
CC Huntington's disease or Gilles dela Tourette's syndrome. The methods for
CC detecting a mutation in the 11cby gene, can therefore be further extended
CC to include genetic counselling for an individual with respect to the
CC individual's potential for developing one of the above diseases.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 113; DB 21; Length 19;
Best Local Similarity 100.0%; Pred. No. 1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DFDMLRCMLGRVYRPCWQV 19
||||||||||||||||||||
Db 1 DFDMLRCMLGRVYRPCWQV 19

RESULT 5
AAU25615
ID AAU25615 standard; Peptide; 19 AA.
XX
AC AAU25615;
XX
DT 18-DEC-2001 (first entry)
XX
DE G Protein-Coupled Receptor-binding cyclic neuropeptide A.
XX
KW Human; G-protein coupled receptor; GPCR; mental disorder; schizophrenia;
KW attention deficit disorder; anxiety; depression; bipolar disorder;
KW neurological disorder; Huntington's disease; dementia; obesity; anorexia;
KW metabolic disorder; Parkinson's disease; Tourette's syndrome; thrombosis;
KW type 2 diabetes; cardiovascular disorder; myocardial infarction; cancer;
KW cardiomyopathy; atherosclerosis; human immunodeficiency virus; HIV;
KW viral infection; immunostimulant; neuroleptic; nootropic; tranquiliser;
KW antidepressant; anorectic; gene therapy.
XX
OS Homo sapiens.
XX
PN WO200162797-A2.
XX
PD 30-AUG-2001.
XX
PF 23-FEB-2001; 2001WO-US05676.
XX
PR 23-FEB-2000; 2000US-0184247.
PR 23-FEB-2000; 2000US-0184303.
PR 23-FEB-2000; 2000US-0184304.
PR 23-FEB-2000; 2000US-0184305.
PR 23-FEB-2000; 2000US-0184397.
PR 02-MAR-2000; 2000US-0186457.
PR 03-MAR-2000; 2000US-0186810.
PR 09-MAR-2000; 2000US-0188064.
PR 13-MAR-2000; 2000US-0188880.
PR 03-APR-2000; 2000US-0194344.
PR 23-JUN-2000; 2000US-0213861.
PR 11-JUL-2000; 2000US-0217369.
PR 11-JUL-2000; 2000US-0217370.
PR 14-JUL-2000; 2000US-0218337.
PR 20-JUL-2000; 2000US-0218492.
XX
PA (PHAA) PHARMACIA & UPJOHN CO.

```
XX
PI   Vogeli G,  Wood LS,  Parodi LA,  Lind P;
XX
DR   WPI; 2001-570628/64.
XX
PT   New isolated nucleic acid encoding a new G-protein coupled receptor
PT   polypeptide for detecting receptor modulators that can treat mental
PT   disorders, such as schizophrenia, anxiety, depression, or obesity -
XX
PS   Claim 95; Page 140; 279pp; English.
XX
CC   Sequences AAU25554-AAU25616 represent human G-protein coupled receptor
CC   (GPCR) polypeptides of the invention. The proteins and their associated
CC   DNA sequences can be used to identify compounds which bind to GPCR
CC   polypeptides and in screening for compounds that modulate GPCR activity.
CC   By screening a human subject for the presence of mutations in GPCR DNA, a
CC   GPCR-related disorder or a genetic predisposition can be diagnosed. The
CC   sequences can also be used for treatment and prevention of mental
CC   disorders such as schizophrenia, attention deficit disorder, anxiety,
CC   depression, dementia and bipolar disorder, neurological disorders such as
CC   Huntington's disease, Parkinson's disease and Tourette's syndrome,
CC   metabolic disorders such as obesity, anorexia and type 2 diabetes,
CC   cardiovascular disorders such as thrombosis, myocardial infarction,
CC   cardiomyopathy and atherosclerosis, viral infections caused by HIV and
CC   cancers.
XX
SQ   Sequence   19 AA;

  Query Match             100.0%;  Score 113;  DB 22;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 1e-09;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DFDMLRCMLGRVYRPCWQV 19
              |||||||||||||||||||
Db          1 DFDMLRCMLGRVYRPCWQV 19


RESULT 6
AAE07335
ID   AAE07335 standard; peptide; 19 AA.
XX
AC   AAE07335;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Mammalian melanin-concentrating hormone receptor.
XX
KW   Melanin-concentrating hormone; MCH analogue; signal transduction;
KW   appetite; therapy; anorexia; acquired immune deficiency syndrome; AIDS;
KW   wasting; cachexia; frail elderly; weight maintenance; cancer; anorectic;
KW   pain reduction; stress reduction; sexual dysfunction; cyclic.
XX
OS   Mammalia.
XX
FH   Key             Location/Qualifiers
FT   Disulfide-bond  7..16
XX
PN   WO200157070-A1.
XX
PD   09-AUG-2001.
XX
PF   01-FEB-2001; 2001WO-US03293.
XX
PR   03-FEB-2000; 2000US-0179967.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Bednarek M;
XX
DR   WPI; 2001-483416/52.
XX
PT   Novel peptide encoding a melanin-concentrating hormone analog useful
PT   for increasing weight or appetite  -
XX
PS   Example 4; Fig 1; 66pp; English.
XX
CC   The present invention relates to truncated melanin-concentrating hormone
CC   (MCH) analogues active at the MCH receptor. The truncated MCH analogues
CC   are optionally modified peptide derivatives of mammalian MCH. The MCH
CC   analogues can bind to the MCH receptor and bring about signal
CC   transduction. The MCH agonists can be used to facilitate a weight gain,
CC   maintenance of weight and/or an appetite increase. The MCH agonists can
CC   also be used to treat disorders such as anorexia, acquired immune
CC   deficiency syndrome (AIDS), wasting, cachexia and frail elderly. The MCH
CC   antagonists can be used to facilitate weight loss, appetite decrease,
CC   weight maintenance, cancer treatment, pain reduction, stress reduction
CC   and/or treatment of sexual dysfunction. The present sequence is a
CC   mammalian MCH receptor.
XX
SQ   Sequence   19 AA;

  Query Match             100.0%;  Score 113;  DB 22;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 1e-09;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DFDMLRCMLGRVYRPCWQV 19
              |||||||||||||||||||
Db          1 DFDMLRCMLGRVYRPCWQV 19


RESULT 7
AAB68894
ID   AAB68894 standard; Peptide; 19 AA.
XX
AC   AAB68894;
XX
DT   24-APR-2001  (first entry)
XX
DE   Human mMCH.
XX
KW   Human; mMCH; mammalian melanin-concentrating hormone; AXOR21;
KW   G-protein coupled receptor; anorectic; antidiabetic; cytostatic;
KW   antiasthmatic; antiparkinsonian; cardiant; hypertensive; osteopathic;
KW   antianginal; cerebroprotective; antiulcer; antiallergic; antimigraine;
KW   antiemetic; tranquiliser; antimanic; gene therapy; vaccine; cancer;
KW   neurological disorder.
XX
OS   Homo sapiens.
XX
PN   WO200107606-A1.
XX
PD   01-FEB-2001.
XX
PF   27-JUL-2000; 2000WO-GB02899.
XX
PR   27-JUL-1999;   99GB-0017627.
PR   24-AUG-1999;   99GB-0020046.
XX
PA   (SMIK ) SMITHKLINE BEECHAM PLC.
XX
PI   Duckworth DM,  Hill J,  Muir AI,  Szekeres PG;
XX
DR   WPI; 2001-182790/18.
XX
PT   Novel G-protein coupled receptor polypeptide, AXOR21, useful for
PT   treating obesity, diabetes, eating disorders such as anorexia and
PT   bulimia, hypertension, osteoporosis, angina pectoris and myocardial
PT   infarction  -
XX
PS   Disclosure; Page 31; 42pp; English.
XX
CC   The present sequence is mammalian melanin-concentrating hormone (mMCH).
CC   mMCH is a ligand for AXOR21, a G-protein coupled receptor.
CC   AXOR21 polynucleotides and polypeptides are useful for treating and
CC   diagnosing conditions such as pain, cancers, diabetes, obesity, anorexia,
CC   bulimia, asthma, Parkinson's disease, acute heart failure, hypotension,
```

CC hypertension, urinary retention, osteoporosis, angina pectoris,
CC myocardial infarction, stroke, ulcers, allergies, benign prostatic
CC hypertrophy, migraine, vomiting, psychotic and neurological disorders
CC including anxiety, schizophrenia, manic depression, depression, delirium,
CC dementia and severe mental retardation, and dyskinesis such as
CC Huntington's disease or Gilles de la Tourette's syndrome. AXOR21
CC polynucleotides and polypeptides are also useful for screening and
CC structure based designing of antagonists, agonists and inhibitors of
CC AXOR1. AXOR21 polynucleotides are useful for chromosome localisation
CC studies, as diagnostic reagents for detecting mutations in associated
CC genes, and as valuable tools for tissue expression studies. AXOR21
CC polynucleotides and polypeptides are useful as vaccines.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 113; DB 22; Length 19;
Best Local Similarity 100.0%; Pred. No. 1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DFDMLRCMLGRVYRPCWQV 19
||||||||||||||||||||
Db 1 DFDMLRCMLGRVYRPCWQV 19

RESULT 8
AAB48153
ID AAB48153 standard; peptide; 19 AA.
XX
AC AAB48153;
XX
DT 02-APR-2001 (first entry)
XX
DE Rat/human melanin-concentrating hormone (MCH) receptor fragment.
XX
KW MCH receptor; melanin-concentrating hormone; anorectic; antiinfertility;
KW immunomodulator; antiparkinsonian; nootropic; anticonvulsant; human;
KW neuroprotective; vasotropic; tranquilizer; antidepressant; neuroleptic;
KW gynecological; contraceptive; osteopathic; GPR24; SLC-1; rat.
XX
OS Homo sapiens.
OS Rattus norvegicus.
XX
PN WO200075166-A1.
XX
PD 14-DEC-2000.
XX
PF 06-JUN-2000; 2000WO-US15503.
XX
PR 08-JUN-1999; 99US-0327807.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Civelli O, Saito Y, Nothacker H;
XX
DR WPI; 2001-050021/06.
XX
PT Use of melanin concentrating hormone receptor for identifying MCH
PT receptor agonist or antagonist, receptor ligand, and an individual
PT susceptible to the receptor-associated conditions such as memory
PT disorders -
XX
PS Disclosure; Fig 4A; 61pp; English.
XX
CC The invention relates to the use of MCH (melanin-concentrating hormone)
CC receptor for identifying (i) agonist or antagonist of the receptor, (ii)
CC an MCH receptor ligand, (iii) an individual having or susceptible to MCH
CC receptor-associated conditions. Human and rat MCH receptor sequences are
CC provided which can be used in the method of the invention for identifying
CC disorders of body weight (such as disorders involving increased (obesity)
CC or decreased body weight such as under weight or cachexia), mood
CC (depression, anxiety disorders, psychotic disorders, schizophrenia),
CC memory and learning (Alzheimer's disease, dementia, etc.), sleep
CC (insomnia, bedwetting, sleepwalking, sleep apnea, etc.), dopaminergic
CC system function (such as Parkinson's disease, Huntington's disease),
CC reproduction (as male or female contraceptives, or male or female sexual
CC dysfunction, impotence, failure of lactation, infertility, etc.) or
CC growth (dwarfism or acromegaly) and also disorders of behaviour such as
CC autistic disorder, Asperger's disorder etc. The agonist or antagonist
CC compounds can be used therapeutically to prevent or ameliorate these
CC conditions. Identifying an individual having or susceptible to MCH
CC receptor associated conditions allows optimal medical care for the
CC individual, including appropriate genetic counseling and prophylactic and
CC therapeutic intervention. The present sequence represents a fragment of
CC the rat/human MCH receptor.
XX
SQ Sequence 19 AA;

Query Match 100.0%; Score 113; DB 22; Length 19;
Best Local Similarity 100.0%; Pred. No. 1e-09;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DFDMLRCMLGRVYRPCWQV 19
||||||||||||||||||||
Db 1 DFDMLRCMLGRVYRPCWQV 19

RESULT 9
AAB37951
ID AAB37951 standard; peptide; 19 AA.
XX
AC AAB37951;
XX
DT 08-MAR-2001 (first entry)
XX
DE Melanin concentrating hormone (MCH) peptide sequence.
XX
KW Somatostatin-like receptor; SLC-1; melanin concentrating hormone; MCH;
KW obesity; eating disorder.
XX
OS Unidentified.
XX
PN WO200070347-A1.
XX
PD 23-NOV-2000.
XX
PF 19-MAY-2000; 2000WO-SE01010.
XX
PR 19-MAY-1999; 99US-0134844.
PR 14-JUN-1999; 99US-0138675.
XX
PA (ASTR) ASTRAZENECA AB.
XX
PI Ahmad S, Cao J, Grazzini E, Lembo P, Walker P;
XX
DR WPI; 2001-025045/03.
XX
PT Assaying compounds that bind to somatostatin-like receptor (SLC-1),
PT useful for treating obesity and eating disorders, comprises incubating
PT cells expressing SLC-1 genes with melanin concentrating hormones and
PT the test compound(s) -
XX
PS Disclosure; Page 3; 17pp; English.
XX
CC This invention relates to assays which can be used to test compounds for
CC their ability to bind to the somatostatin-like receptor (SLC-1 receptor).
CC The assay comprises incubating a cell expressing SLC-1 receptor gene with
CC melanin concentrating hormone (MCH) and the test compound, and
CC determining the extent to which binding of the MCH is displaced by the
CC test compound. The method is useful for determining whether a test
CC compound can be used to modulate the binding of MHC to the SLC-1
CC receptor. Compounds identified as modulators may be used as therapeutic
CC agents in treating obesity and eating disorders. This sequence represents
CC the melanin concentrating hormone (MCH) amino acid sequence.
XX
SQ Sequence 19 AA;

```
  Query Match           100.0%;  Score 113;  DB 22;  Length 19;
  Best Local Similarity  100.0%;  Pred. No. 1e-09;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DFDMLRCMLGRVYRPCWQV 19
              ||||||||||||||||||||
Db          1 DFDMLRCMLGRVYRPCWQV 19


RESULT 10
AAU77533
ID   AAU77533 standard; Protein; 19 AA.
XX
AC   AAU77533;
XX
DT   05-JUN-2002  (first entry)
XX
DE   Melanin concentrating hormone (MCH).
XX
KW   G protein-coupled orphan; receptor; SLT; melanin-concentrating hormone;
KW   MCH; appetite-stimulating agent; obesity; malignant mastocystosis;
KW   exogenous obesity; hyperinsulinar obesity; sexual function disorder;
KW   overpowering intermittent pain; still born; uterus rupture;
KW   premature birth; Prader-Willi syndrome.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= OTHER
FT                   /note= "OTHER= 3-[4-hydroxy-3-(125-iodo)-phenyl]
FT                    propanoyl"
FT   Disulfide-bond  7..16
XX
PN   WO200203070-A1.
XX
PD   10-JAN-2002.
XX
PF   04-JUL-2001; 2001WO-JP05809.
XX
PR   05-JUL-2000; 2000JP-0208254.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Mori M,  Shimomura Y,  Harada M,  Sugo T,  Shintani Y;
XX
DR   WPI; 2002-164552/21.
XX
PT   Screening for compounds or salts which alter affinity of
PT   melanin-concentrating hormone with its receptor to provide agonists as
PT   appetite-stimulating agents and its antagonist for preventing or
PT   treating obesity, uses a protein or hormone -
XX
PS   Claim 8; Page.17; 112pp; Japanese.
XX
CC   The invention describes a method of screening for compounds or their
CC   salts that can change affinity of melanin-concentrating hormone (MCH)
CC   with its G protein-coupled orphan receptor protein, SLT. The screened
CC   MCH receptor agonists are useful as appetite-stimulating agents and its
CC   antagonist for preventing or treating obesity e.g. malignant
CC   mastocystosis, exogenous obesity and hyperinsulinar obesity, and also
CC   for treating sexual function disorders, overpowering intermittent pains,
CC   still borns, uterus rupture, premature birth and Prader-Willi syndrome.
CC   This sequence represents the melanin-concentrating hormone (MCH),
CC   described in the invention.
XX
SQ   Sequence   19 AA;

  Query Match           100.0%;  Score 113;  DB 23;  Length 19;
  Best Local Similarity  100.0%;  Pred. No. 1e-09;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DFDMLRCMLGRVYRPCWQV 19
              ||||||||||||||||||||
Db          1 DFDMLRCMLGRVYRPCWQV 19


RESULT 11
AAR07360
ID   AAR07360 standard; protein; 165 AA.
XX
AC   AAR07360;
XX
DT   29-JAN-1991  (first entry)
XX
DE   Rat melanin-concentrating precursor.
XX
KW   Melanin concentrating hormone; skin disorders; melanomas;
KW   ACTH secretion.
XX
FH   Key             Location/Qualifiers
FT   Region          131..146
FT                   /label=rat MCH peptide
XX
PN   WO9011295-A.
XX
PD   04-OCT-1990.
XX
PF   20-MAR-1990;   90WO-US01492.
XX
PR   22-MAR-1989;   89US-0326984.
XX
PA   (SALK ) SALK INST FOR BIOL STUD.
XX
PI   Vaughan J,  Fischer WH,  Rivier JE,  Nahon JM,  Presse FG,  Vale WW;
XX
DR   WPI; 1990-320225/42.
DR   N-PSDB; AAQ06245.
XX
PT   Cyclic mammalian hormone for concentrating mammalian melanin -
PT   comprises peptide based on 19 amino acid residues with cysteine
PT   linkages.
XX
PS   Disclosure; page 34; 47pp; English.
XX
CC   This is therat melanin-concentrating hormone (MCH) precursor.
CC   See also AAQ06238-42, AAQ06244 and AAQ06246-48.
XX
SQ   Sequence   165 AA;

  Query Match           100.0%;  Score 113;  DB 11;  Length 165;
  Best Local Similarity  100.0%;  Pred. No. 8.1e-09;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DFDMLRCMLGRVYRPCWQV 19
              ||||||||||||||||||||
Db        147 DFDMLRCMLGRVYRPCWQV 165


RESULT 12
AAB12780
ID   AAB12780 standard; peptide; 18 AA.
XX
AC   AAB12780;
XX
DT   22-NOV-2000  (first entry)
XX
DE   Rat MCH ligand peptide SEQ ID NO:19.
XX
KW   SLC-1; MHC; melanin concentrating hormone; screening; eating;
KW   appetite stimulator; appetite regulator; period pain; atonic bleeding;
KW   caesarean section; milk congestion; antiobestic agent; drug;
KW   foetal asphyxia; cevical rupture; premature birth; uterine rupture;
KW   Prader-Willi syndrome; anorectic; gynaecological; abortifaciant;
KW   antoanaemia; anabolic; orphan G protein-couple receptor protein.
XX
```

OS Rattus sp.
XX
FH Key Location/Qualifiers
FT Disulfide-bond 6..15
XX
PN WO200040725-A1.
XX
PD 13-JUL-2000.
XX
PF 27-DEC-1999; 99WO-JP07336.
XX
PR 28-DEC-1998; 98JP-0374454.
PR 28-APR-1999; 99JP-0122688.
PR 02-SEP-1999; 99JP-0249300.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Mori M, Shimomura Y, Takekawa S, Sugo T, Ishibashi Y, Kitada C;
PI Suzuki N;
XX
DR WPI; 2000-475832/41.
XX
PT Screening methods for compounds as SLC-1 (ant)agonists useful in the
PT treatment of eating disorders and as preventives and remedies for e.g.
PT atonic bleeding and Prader-Willi syndrome -
XX
PS Example 17; Page 117; 123pp; Japanese.
XX
CC The present invention describes a method for screening components (I) or
CC their salts that can alter the binding properties of melanin-
CC concentrating hormone (MCH) or its derivative or salt to SLC-1 or its
CC salt. Compounds identified by (I) are useful as SLC-1 (ant)agonists in
CC eating disorders and as preventives and remedies for e.g. period pains,
CC uterine recovery failure, caesarean section, artificial interruption of
CC pregnancy, galactostosis, tonic uterine contraction, foetal asphyxia,
CC rupture of uterus, cervical rupture, premature birth and Prader-Willi
CC syndrome. The present sequence represents a rat MHC ligand peptide
CC which is used in the exemplification of the present invention.
XX
SQ Sequence 18 AA;

Query Match 94.7%; Score 107; DB 21; Length 18;
Best Local Similarity 100.0%; Pred. No. 7.4e-09;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 FDMLRCMLGRVYRPCWQV 19
||||||||||||||||||
Db 1 FDMLRCMLGRVYRPCWQV 18

RESULT 13
AAU77534
ID AAU77534 standard; Protein; 18 AA.
XX
AC AAU77534;
XX
DT 05-JUN-2002 (first entry)
XX
DE Melanin concentrating hormone (MCH) residues 2-19.
XX
KW G protein-coupled orphan; receptor; SLT; melanin-concentrating hormone;
KW MCH; appetite-stimulating agent; obesity; malignant mastocystosis;
KW exogenous obesity; hyperinsulinar obesity; sexual function disorder;
KW overpowering intermittent pain; still born; uterus rupture;
KW premature birth; Prader-Willi syndrome.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "OTHER= 3-[4-hydroxy-3-(125-iodo)-phenyl]
FT propanoyl"
FT Disulfide-bond 6..15
XX
PN WO200203070-A1.
XX
PD 10-JAN-2002.
XX
PF 04-JUL-2001; 2001WO-JP05809.
XX
PR 05-JUL-2000; 2000JP-0208254.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Mori M, Shimomura Y, Harada M, Sugo T, Shintani Y;
XX
DR WPI; 2002-164552/21.
XX
PT Screening for compounds or salts which alter affinity of
PT melanin-concentrating hormone with its receptor to provide agonists as
PT appetite-stimulating agents and its antagonist for preventing or
PT treating obesity, uses a protein or hormone -
XX
PS Disclosure; Page 17; 112pp; Japanese.
XX
CC The invention describes a method of screening for compounds or their
CC salts that can change affinity of melanin-concentrating hormone (MCH)
CC with its G protein-coupled orphan receptor protein, SLT. The screened
CC MCH receptor agonists are useful as appetite-stimulating agents and its
CC antagonist for preventing or treating obesity e.g. malignant
CC mastocystosis, exogenous obesity and hyperinsulinar obesity, and also
CC for treating sexual function disorders, overpowering intermittent pains,
CC still borns, uterus rupture, premature birth and Prader-Willi syndrome.
CC This sequence represents a segment of the melanin-concentrating hormone
CC (MCH), described in the invention.
XX
SQ Sequence 18 AA;

Query Match 94.7%; Score 107; DB 23; Length 18;
Best Local Similarity 100.0%; Pred. No. 7.4e-09;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 FDMLRCMLGRVYRPCWQV 19
||||||||||||||||||
Db 1 FDMLRCMLGRVYRPCWQV 18

RESULT 14
AAU77535
ID AAU77535 standard; Protein; 17 AA.
XX
AC AAU77535;
XX
DT 05-JUN-2002 (first entry)
XX
DE Melanin concentrating hormone (MCH) residues 3-19.
XX
KW G protein-coupled orphan; receptor; SLT; melanin-concentrating hormone;
KW MCH; appetite-stimulating agent; obesity; malignant mastocystosis;
KW exogenous obesity; hyperinsulinar obesity; sexual function disorder;
KW overpowering intermittent pain; still born; uterus rupture;
KW premature birth; Prader-Willi syndrome.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= OTHER
FT /note= "OTHER= 3-[4-hydroxy-3-(125-iodo)-phenyl]
FT propanoyl"
FT Disulfide-bond 5..14
XX
PN WO200203070-A1.
XX
PD 10-JAN-2002.

```
XX
PF   04-JUL-2001; 2001WO-JP05809.
XX
PR   05-JUL-2000; 2000JP-0208254.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Mori M,  Shimomura Y,  Harada M,  Sugo T,  Shintani Y;
XX
DR   WPI; 2002-164552/21.
XX
PT   Screening for compounds or salts which alter affinity of
PT   melanin-concentrating hormone with its receptor to provide agonists as
PT   appetite-stimulating agents and its antagonist for preventing or
PT   treating obesity, uses a protein or hormone -
XX
PS   Disclosure; Page 17; 112pp; Japanese.
XX
CC   The invention describes a method of screening for compounds or their
CC   salts that can change affinity of melanin-concentrating hormone (MCH)
CC   with its G protein-coupled orphan receptor protein, SLT. The screened
CC   MCH receptor agonists are useful as appetite-stimulating agents and its
CC   antagonist for preventing or treating obesity e.g. malignant
CC   mastocystosis, exogenous obesity and hyperinsulinar obesity, and also
CC   for treating sexual function disorders, overpowering intermittent pains,
CC   still borns, uterus rupture, premature birth and Prader-Willi syndrome.
CC   This sequence represents a segment of the melanin-concentrating hormone
CC   (MCH), described in the invention.
XX
SQ   Sequence   17 AA;

  Query Match             89.4%;  Score 101;  DB 23;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-08;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 DMLRCMLGRVYRPCWQV 19
              |||||||||||||||||
Db          1 DMLRCMLGRVYRPCWQV 17


RESULT 15
AAE07337
ID   AAE07337 standard; peptide; 19 AA.
XX
AC   AAE07337;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human truncated melanin-concentrating hormone receptor analogue #6.
XX
KW   Human; melanin-concentrating hormone; MCH analogue; signal transduction;
KW   appetite; therapy; anorexia; acquired immune deficiency syndrome; AIDS;
KW   wasting; cachexia; frail elderly; weight maintenance; cancer; anorectic;
KW   pain reduction; stress reduction; sexual dysfunction; cyclic.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /label= Nle
FT   Disulfide-bond  7..16
FT   Modified-site   8
FT                   /label= Nle
XX
PN   WO200157070-A1.
XX
PD   09-AUG-2001.
XX
PF   01-FEB-2001; 2001WO-US03293.
XX
PR   03-FEB-2000; 2000US-0179967.
XX
PA   (MERI ) MERCK & CO INC.
XX
PI   Bednarek M;
XX
DR   WPI; 2001-483416/52.
XX
PT   Novel peptide encoding a melanin-concentrating hormone analog useful
PT   for increasing weight or appetite -
XX
PS   Example 4; Page 12; 66pp; English.
XX
CC   The present invention relates to truncated melanin-concentrating hormone
CC   (MCH) analogues active at the MCH receptor. The truncated MCH analogues
CC   are optionally modified peptide derivatives of mammalian MCH. The MCH
CC   analogues can bind to the MCH receptor and bring about signal
CC   transduction. The MCH agonists can be used to facilitate a weight gain,
CC   maintenance of weight and/or an appetite increase. The MCH agonists can
CC   also be used to treat disorders such as anorexia, acquired immune
CC   deficiency syndrome (AIDS), wasting, cachexia and frail elderly. The MCH
CC   antagonists can be used to facilitate weight loss, appetite decrease,
CC   weight maintenance, cancer treatment, pain reduction, stress reduction
CC   and/or treatment of sexual dysfunction. The present sequence is a human
CC   truncated MCH receptor analogue.
XX
SQ   Sequence   19 AA;

  Query Match             89.4%;  Score 101;  DB 22;  Length 19;
  Best Local Similarity   89.5%;  Pred. No. 5.8e-08;
  Matches   17;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 DFDMLRCMLGRVYRPCWQV 19
              ||| ||| ||||||||||
Db          1 DFDXLRCXLGRVYRPCWQV 19


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